



@ North Carolina Central University

BRITE is:

- Workforce Development
- Economic Development
- Cutting Edge Translational Medicine Research

A nationally recognized program at NCCU established *to train future generations of biotechnology scientists* prepared to work in the Pharmaceutical and Biomanufacturing Industry

An academic program providing a mix of classroom and laboratory based instruction with the latter focused on *developing skills relevant to industry.*

A program with a strong research focus, particularly in the areas of drug discovery and manufacturing technology with a faculty of scientists conducting scientific research to have an impact on human health and disease.



Dr. Faye Calhoun
Interim Director



What Sets BRITE Apart from the Rest?



Excellent Training in Biopharma must be informed by excellent research

Started a unique drug discovery program in 2007 with faculty from big pharma

Students perform 18-hours per week of real translational pharmaceutical-grade research, empowering them to be job ready on day-1 and be highly competitive – independent workers & thinkers.

The State's investment in this workforce development program has produced significant economic development in translational medicine.





BRITE FUTURES PROGRAM Grades 5-12

Outreach

- Tours of the BRITE facility, conversations with scientists, provide hands-on STEM activities, and highlight STEM careers
- Summer camps for middle and high school students
- Professional development workshops for middle and high school teachers: 534 since 2008; 107 in 2016-17
- Served 83 of 100 counties since 2008; 19 counties in 2016-17

Counties Served

2016 - 2017

- | | |
|--------------------|---------------|
| ■ Alamance | ■ Nash |
| ■ Cumberland | ■ Northampton |
| ■ Duplin | ■ Orange |
| ■ Durham | ■ Rockingham |
| ■ Edgecombe | ■ Scotland |
| ■ Franklin | ■ Person |
| ■ Guilford | ■ Pitt |
| ■ Martin | ■ Vance |
| ■ Mecklenburg | ■ Wake |
| ■ Nash | ■ Warren |

A total of 19 counties served



Mrs. Betty Brown, Coordinator

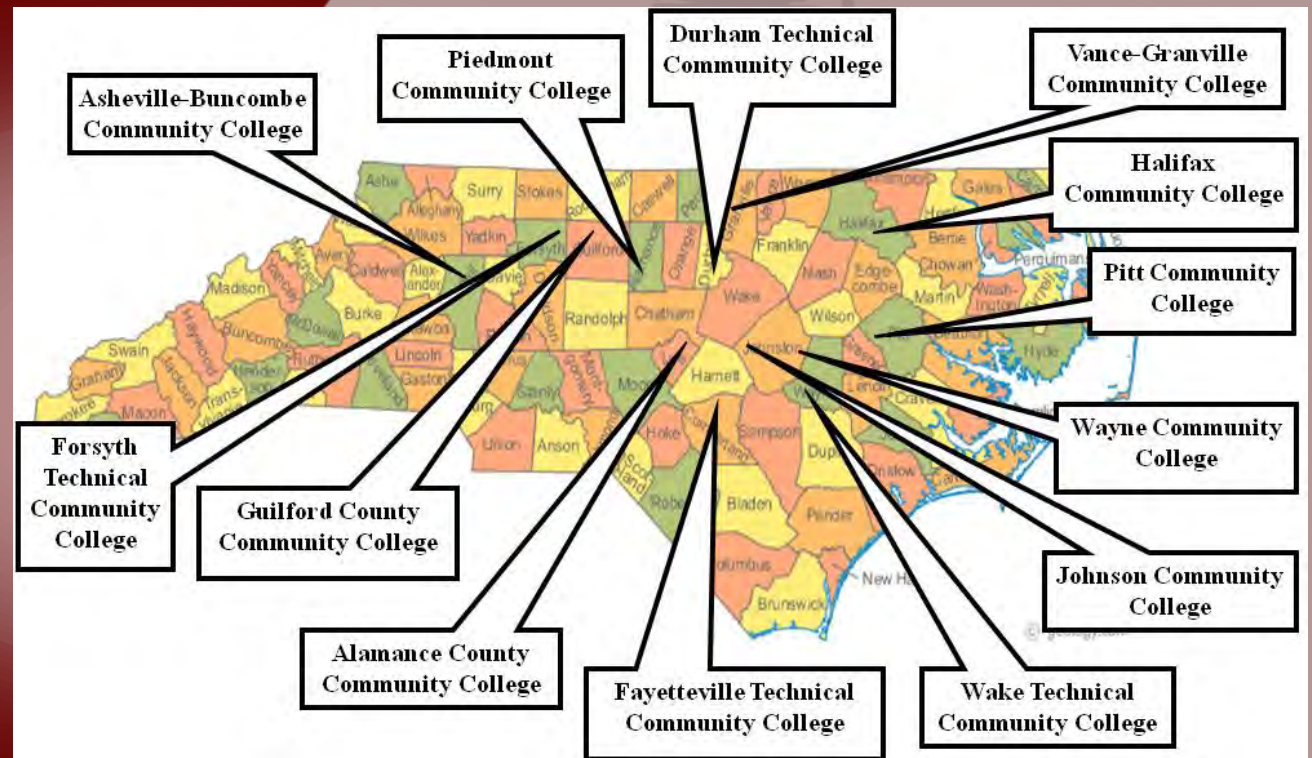


BRITE by the Numbers

Enrollment

- Fall 2016
33 Freshman
17 Transfers (includes spr17)
- Graduates
Fall/Spring/Summer
30-40

Community College Articulation Agreements



	2014	2015	2016
BS	163	169	149
MS	14	17	18



BRITE Research Capabilities

Discovery Research Areas Include:

Cancer, Diabetes/Obesity, Neurodegeneration, Alcohol abuse, infectious diseases, parasites, ischemic stroke, cardiovascular disease, plant biotechnology

- 52,000 sqf facility opened in 2007
- 13 Faculty, 7 with industrial experience
- 1/2 Million Compound Library On Site.
- \$10 Million+ in Capital Equipment Purchased in 2006-2008





Academic & Industrial Partnerships

Academic

- UNC Chapel Hill
 - Collaborative Research with UNC Chapel Hill on Alcohol Pathology
 - Curriculum building with School of Pharmacy – MS Level.
 - Lineberger Comprehensive Cancer Center
- Duke
 - Triangle consortium on evolutionary medicine
 - Duke-NCCU Partnership – research, community outreach, workforce
- NCSU BTEC & NIIMBL
 - Consortium to advance pharmaceutical manufacturing. BRITE is an academic level 2 participant in NIIMBL focused on workforce development
 - NoroCORE – Building capacity to control viral foodborne disease.
 - 3/2 Curriculum for engineering students from NCCU

Industrial

- Eli Lilly & Co. – Drug Discovery
- Biotech - Southeast Techinventures, drug development – diabetes.
- Zen Bio Inc. – drug development, metabolic diseases
- Arthrotech – Biomarker for CVD
- PPD Biotech – Drug development – chronic liver disease
- Womac Army Medical Center - MOU
- Novo Nordisk – Worker Training
- Biospecifics – Uterine fibroid technology.
- NIH/NCATS – HTS Ring Initiative



Partnering in Asia – A Rising Partner

MOU with Ningxia Medical University

- Two-Way Student Exchange
- Faculty Exchange
- Collaborative model for translating basic biomedical science research to the bedside at Ningxia medical hospital

